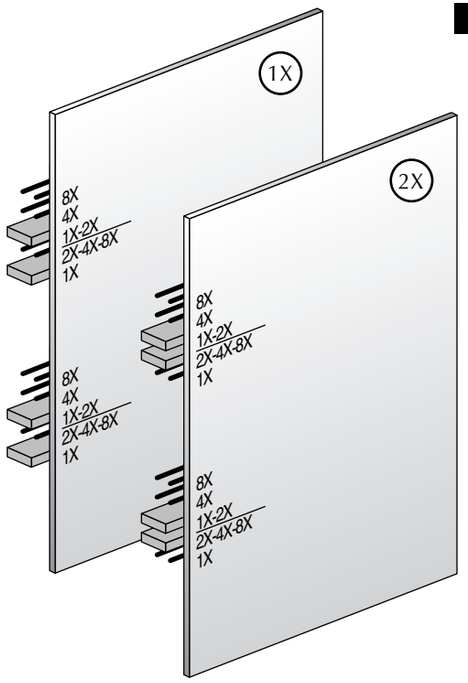
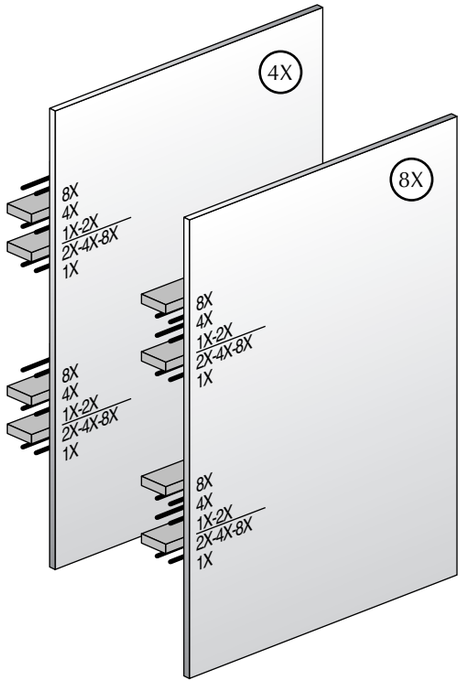
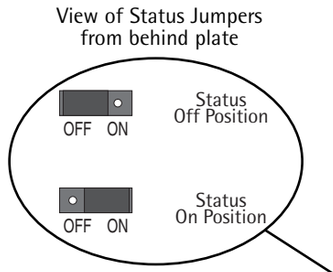
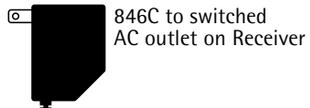
CONNECTION DIAGRAMS FOR RUSSOUND MODEL ALTx-WIRi. REFER TO THE INSTRUCTIONS ON REVERSE SIDE. *DIAGRAMS ARE NOT TO SCALE.*

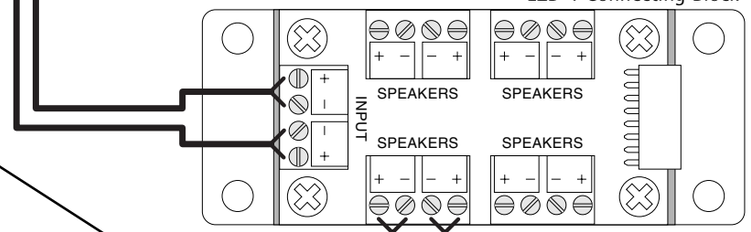


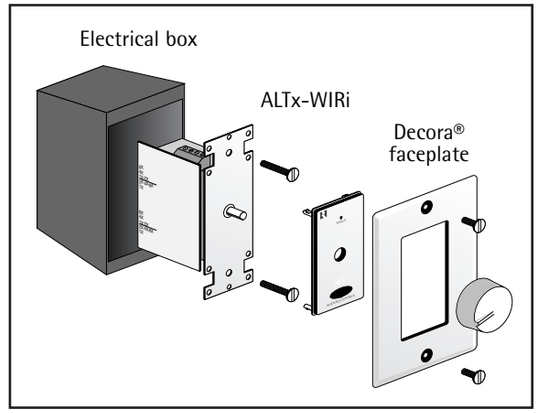
Jumper Settings on Circuit Boards

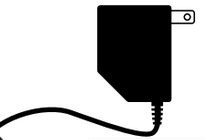












Impedance Matching Charts For UltraMatch™

Refer to the circuit board illustrations at left, which show the four possible settings (1X, 2X, 4X, 8X).

Impedance Matching For 4 Ohm Amplifiers

8 Ohm Pairs

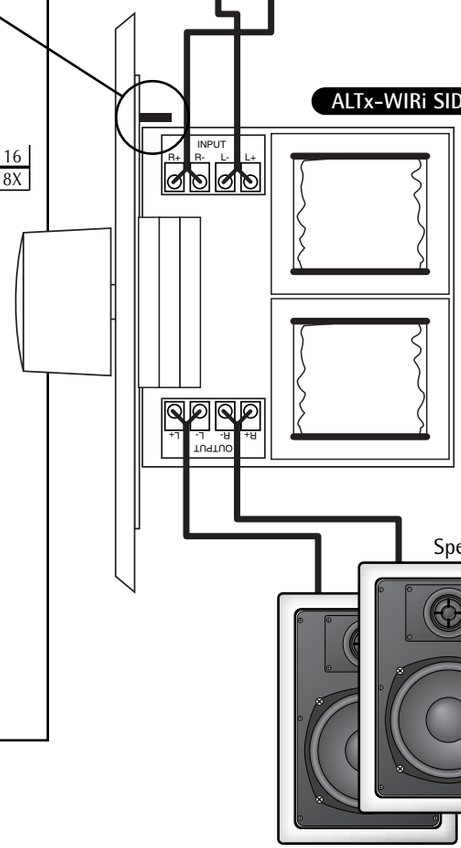
4 Ohm Pairs	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
0	-	1X	1X	2X	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X
1	1X	2X	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X		
2	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X				
3	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X						
4	4X	8X	8X	8X	8X	8X	8X	8X	8X								
5	8X	8X	8X	8X	8X	8X	8X										
6	8X	8X	8X	8X	8X												
7	8X	8X	8X														
8	8X																

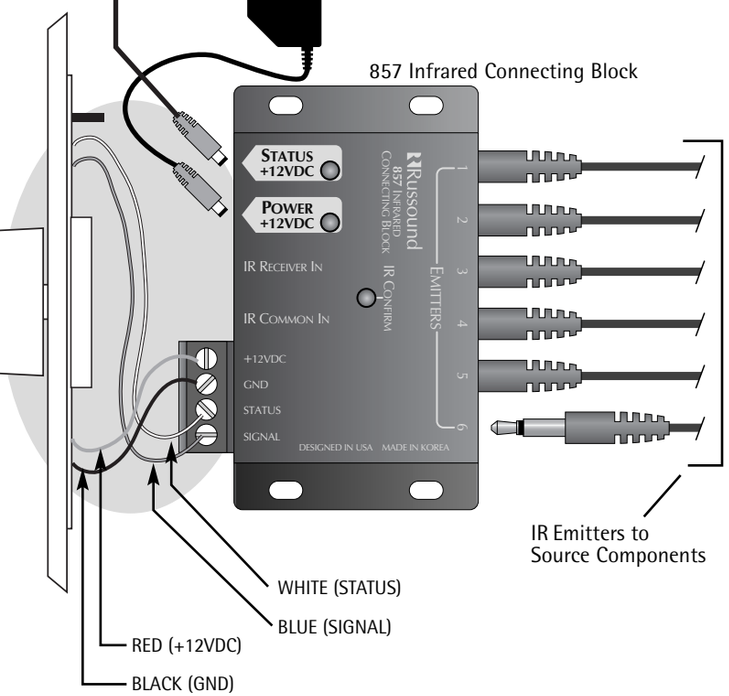
Example: The table below shows an 8 ohm minimum impedance amplifier with 1 pair of 4 ohm speakers and 3 pairs of 8 ohm speakers. The chart indicates the jumper setting should be set at 8X.

Impedance Matching For 8 Ohm Amplifiers

8 Ohm Pairs

4 Ohm Pairs	0	1	2	3	4	5	6	7	8
0	-	1X	2X	4X	4X	8X	8X	8X	8X
1	2X	4X	4X	8X	8X	8X	8X		
2	4X	8X	8X	8X	8X				
3	8X	8X	8X						
4	8X								





IR and Status Connections

INSTRUCTIONS FOR CONNECTING AND USING RUSSOUND MODEL ALTx-WIRi. REFER TO DIAGRAMS ON REVERSE SIDE.

CONSIDERATIONS

1. IMPORTANT: If you are unsure of any of the installation procedures, the products should be installed by a professional custom installer.
2. Make sure that your amplifier has adequate wattage for the number of speakers. Watts per channel divided by the number of pairs should equal or exceed the individual speaker's minimum wattage requirements.
3. You must use one (1) UltraMatch™ volume control for each pair of speakers.
4. Every jumper setting must be set on the same setting throughout the system.
5. A minimum speaker load of 4 ohms can be connected to the output of each UltraMatch™ volume control.

SET JUMPERS FOR IMPEDANCE MATCHING

Important: A minimum speaker load of 4 ohms can be connected to the output of each UltraMatch™ volume control.

The jumper must be set in a position that correctly multiplies the impedance of the system to a level that is equal to or greater than the impedance of the amp.

1. Determine the amplifier's minimum impedance (as listed in its owner's manual or on its back panel).
2. Choose the correct impedance-matching chart (8 ohm or 4 ohm) shown on the reverse side of this page. If your amplifier is 6-ohm, use the 8-ohm chart.
3. Determine the total number of 4-ohm pairs of speakers (rows on charts)
4. Determine the total number of 8-ohm pairs of speakers (columns on charts)
5. Look up your correct jumper setting and set the jumpers as shown in the circuit board illustrations on the reverse side of this page.

RUSSOUND EZB CONNECTING BLOCKS (OPTIONAL)

The EZB-1 and EZB-2 connecting blocks are Russound accessories that simplify connections of multiple volume controls and speaker pairs. The EZB-1 is a neat, compact wiring device capable of connecting four volume controls to an amp's outputs. The EZB-2 expands the EZB-1 to another 4 volume controls. Multiple EZB-2's can be used to expand the system to sixteen volume controls.

RUSSOUND 857 IR CONNECTING BLOCK (OPTIONAL)

The 857 IR connecting block allows IR signals received by the ALTx-WIRi to be easily distributed to multiple source components via Russound 845.1 or 1584 IR emitters. The 857 and the Status feature are each powered by the Russound 846C power supply (sold separately).

WIRING INSTRUCTIONS

Type of Speaker Wire

For most applications, we recommend you use 16 or 18 gauge, stranded copper speaker wire for the ALTx-WIRi speaker connections. For wiring runs longer than 100 feet, 12 gauge wire is recommended. Using speaker wire larger than 12 gauge for ALTx-WIRi Volume Controls is not recommended as the wire may not fit into the connectors.
NOTE: Never use solid-core, aluminum or Romex® type wire with volume controls. When running speaker wires inside walls, most states and municipalities in the U.S. specify that you must use a special type of speaker wire. Usually, the requirement is that the wire has a specific "CL" fire rating, such as "CL-2" or "CL-3". Consult your Russound dealer, building contractor, or local building and inspection department if unsure about which type of wire is best for your application. If you need speaker wire, we recommend you order Russound AW Series wire. These speaker cables use multi-strand copper wire and high-temperature PVC jackets specially designed for snaking through the walls and for long speaker runs.

Amplifier & Speaker Connections

1. Connect the leads from the amplifier's speaker outputs to the connector labeled INPUT on the EZB-1 connecting block. Make sure to maintain polarity (+, –) as well as channel identification (Left, Right).

   CAUTION: Do not reverse the input and output connections!!

   NOTE: A majority of receivers are designed to operate at a rating of 8 ohms. On receivers that offer A and B speaker outputs, the A and B connections share the same amplifier. It is important to note, due to the way many receivers are wired, that when using impedance matching devices, such as UltraMatch™ volume controls, it is recommended to wire all speakers to the A output. If you have any questions contact Russound directly.
2. Connect each output labelled SPEAKERS on the EZB-1 to the INPUT on an ALTx-WIRi volume control. The EZB-1 can accommodate 4 volume controls.
3. Connect the OUTPUT on each ALTx-WIRi volume control to a pair of speakers.

IR Receiver and Status Line Connections

4. Connect the IR and Status wires to the 857 connecting block as illustrated. The 857 input connector is designed to accept up to 12 AWG wire. If you are using multiple ALTx-WIRi volume controls, use thinner 24 AWG wire and bundle the IR and Status wires together.
5. When using the status feature, move status jumper to "ON" and connect a 12VDC power supply to the status input on connecting block.

INSTALLATION

The total mounting depth from the wallplate/faceplate to the back of the ALTx-WIRi is 2-7/8". You must use a minimum of a standard light switch plaster ring (P-Ring) or a standard 20 cu. in. (or larger) electrical box. Suitable P-Rings and electrical boxes are available from your Russound dealer or a local electrical supply company. Using the P-Ring during new construction is best because it gives you unobstructed access to the full depth of the wall (some building codes require that wall devices be enclosed in electrical boxes; check your local building code).

Do not install the ALTx-WIRi into electrical boxes with 110V devices. Some states or municipalities allow devices such as the ALTx-WIRi to be installed into the same electrical box as 110V devices, provided a "low-voltage partition" is used between the devices. Russound does not recommend this. Speaker wires can act as an "antenna" for electrical noise. Locating speaker wires too close to a light switch or dimmer switch may cause a "humming" or "buzzing" sound to be heard through the speakers. If you must locate the Volume Control near electrical devices, install it in a separate metal electrical box, ground the box to the electrical system ground, and route the speaker wires several feet away from the electrical wiring.

Continued at top right...

English

Model ALTx-WIRi

Volume Control with IR Receiver

Instruction Manual

ALTx-WIRi OVERVIEW

The ALTx-WIRi UltraMatch™ Volume Control is a wall-mount stereo speaker-level volume control with built-in IR Receiver. It connects between the speaker outputs of an amplifier or receiver and a pair of speakers. UltraMatch™ is a method of matching the minimum output impedance of the amplifier or receiver, in addition to adjusting volume. It eliminates the need for a speaker selector or impedance matching equipment.

IMPORTANT – Before installation, review the manuals included with each component in your system. If you are unsure of any of the installation procedures described herein or elsewhere, consult a professional electronics installer.

ALTx-WIRi FEATURES

1) Rotary control of volume level and speakers on/off
2) IR receiver
3) LED indicator for source component on/off status
4) UltraMatch™ impedance matching
5) Fits Standard and Decora® faceplates

ALTx-WIRi SPECIFICATIONS

Volume Control Component

Power Handling (/ch.):	126 watts max.; 42 watts RMS continuous
Input Impedance:	Config. to1X, 2X, 4X, or 8X impedance matching
Quick Connect Terminals:	Accept up to 12-gauge wire
Attenuation:	12 steps including Off; total attenuation 43 dB
Frequency Response:	20Hz - 20kHz, +1.0/-0.5 dB at rated power
Mounting:	Fits most single-gang junction boxes
Dimensions:	1.625"W x 2.625"H x 2.86"D (41x66x73mm)
Weight:	1 lb. (400g)

Infrared Component

Receive Frequency:	36kHz to 58kHz
Transmit Frequency:	40kHz to 56kHz
Range On-Axis:	55 ft. to 80 ft.
Range Off-Axis:	30 ft.
Main Power:	12VDC, 31mA max.
Status Power:	12VDC, 3mA max.
Wire Requirements:	2 twisted pair, with or without shield

CE

TÜV Rheinland of North America, Inc. C US E65-94

Conforms to UL 6500 Certified to CAN/CSA

Russound ALTx-WIRi FC Tested to Comply with FCC Standards FOR HOME OR OFFICE USE

Russound
A/V DISTRIBUTION & CONTROL SYSTEMS
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☎ 603.659.5170 • Fax 603.659.5388
e-mail: tech@russound.com

the right connection

Come visit us at:

www.russound.com

INSTRUCTIONS (CNTD)

INSTALLATION (CNTD)

Install the completed ALTx-WIRi assembly in the electrical box. Insert carefully to avoid excessive strain on wire connections. Taking the time to feed excess wire out the back of the electrical box will help you with the final mounting.

OPERATION

1. Make sure your audio receiver is OFF and set its volume all the way down.
2. Set the ALTx-WIRi volume to maximum (fully clockwise).
3. Make certain the receiver volume is all the way down. Then turn on the receiver and select a music source, such as tuner or CD player.
4. Slowly turn up the receiver volume and set it to a comfortable (not maximum) listening level. Be careful not to overdrive your receiver. If the sound becomes muddy or distorted, you have reached the limit of your receiver's volume capability and should quickly reduce the volume to avoid damaging your speakers.
   NOTE: 12 o'clock (50%) on most receivers is full volume. A receiver that is being driven beyond its potential will produce DC voltage (clipping) which will not pass through a transformer, resulting in improper signal transfer and possible amplifier shutdown or damage.
5. Use the ALTx-WIRi to adjust the speaker volume to the desired listening level.
6. You can turn off the speakers in each room by turning the knob on the ALTx-WIRi fully counter-clockwise.

LIMITED WARRANTY

All Russound volume controls are fully guaranteed against all defects in materials and workmanship as long as the original purchaser and user of the volume control owns the unit. During the warranty period, Russound, at its option, will replace or repair any defective part and correct any defect in workmanship without charge for parts or labor. For this warranty to apply, the unit must be installed and used in accordance to its written instructions. If necessary, repairs must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission of Russound. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse, or from servicing performed by an agent or person not specifically authorized in writing by Russound. Damage to or destruction of components due to application of excessive power voids the warranty on those parts. Repairs to components damaged or destroyed due to application of excessive power will be made by charging the owner the retail value of the parts and labor for the repair. To return items for repairs, the unit must be shipped to Russound at the owner's expense, along with a written explanation of the nature of the service required. The unit must be packed in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit. Russound reserves the right to request proof of purchase. Except to the extent prohibited by applicable law, no other warranties, whether expressed or implied, other than the express warranties stated herein, shall apply to units sold to the purchaser. Russound shall not be liable for any implied warranty of merchantability or fitness for a particular purpose to any person other than the original purchaser and user. Under no circumstances shall Russound be liable for property damage, economic loss or any consequential damages sustained in connection with the purchase and use of its products. Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Russound neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than such as is expressly set forth herein. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.